

INTERNATIONAL SEARCH REPORT

International Application No
/IB2004/050985

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01N21/17 G01N21/63 G01N29/24		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 G01N		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, INSPEC		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 174 739 B1 (STEFFAN PAUL J) 16 January 2001 (2001-01-16) figures 4,5	1-16
X	LOGAN R ET AL: "MICROELECTRONIC FILM THICKNESS DETERMINATION USING A LASER-BASED ULTRASONIC TECHNIQUE" MATERIALS RESEARCH SOCIETY SYMPOSIUM PROCEEDINGS, MATERIALS RESEARCH SOCIETY, PITTSBURG, PA, US, vol. 440, 1997, pages 347-352, XP001019773 ISSN: 0272-9172 page 350; figures 3,4	1-16
X	US 6 256 100 B1 (ROGERS JOHN A ET AL) 3 July 2001 (2001-07-03) column 9; figures 7,8 <div style="text-align: center;">-/-</div>	1-16
<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex. </div>		
* Special categories of cited documents :		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>*G* document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search <div style="text-align: center;">3 September 2004</div>		Date of mailing of the international search report <div style="text-align: center;">21/09/2004</div>
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer <div style="text-align: center;">Mason, W</div>

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GOSTEIN M ET AL: "Non-contact metal film metrology using impulsive stimulated thermal scattering"</p> <p>CHARACTERIZATION AND METROLOGY FOR ULSI TECHNOLOGY 2000. INTERNATIONAL CONFERENCE 26-29 JUNE 2000 GAITHERSBURG, MD, USA, no. 550, pages 478-488, XP002294908</p> <p>AIP Conference Proceedings 2001 AIP USA ISSN: 0094-243X</p> <p>figures 8,9,14</p> <p style="text-align: center;">----</p>	1-16
X	<p>MAZNEV A A ET AL: "Precise determination of thin metal film thickness with laser-induced acoustic grating technique"</p> <p>NONDESTRUCTIVE METHODS FOR MATERIALS CHARACTERIZATION. SYMPOSIUM 29-30 NOV. 1999 BOSTON, MA, USA, pages 195-200, XP009035956</p> <p>Nondestructive Methods for Materials Characterization. Symposium (Materials Research Society Symposium Proceedings Vol. 591) 2000 Mater. Res. Soc Warrendale, PA, USA</p> <p>ISBN: 1-55899-499-8</p> <p>figure 7</p> <p style="text-align: center;">----</p>	1-16
X	<p>BANET M ET AL: "All-optical, non-contact measurement of copper and tantalum films deposited by PVD and ECD in blanket films and single damascene structures"</p> <p>CHARACTERIZATION AND METROLOGY FOR ULSI TECHNOLOGY. 1998 INTERNATIONAL CONFERENCE 23-27 MARCH 1998 GAITHERSBURG, MD, USA, no. 449, pages 419-423, XP009035961</p> <p>AIP Conference Proceedings 1998 AIP USA ISSN: 0094-243X</p> <p>page 422</p> <p style="text-align: center;">----</p>	1-16
A	<p>US 5 982 482 A (ROGERS JOHN A ET AL)</p> <p>9 November 1999 (1999-11-09)</p> <p>figure 5A</p> <p style="text-align: center;">-----</p>	1-16

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Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6174739	B1	16-01-2001	NONE	
US 6256100	B1	03-07-2001	EP 0991915 A1	12-04-2000
			WO 9956077 A1	04-11-1999
			JP 2002508081 T	12-03-2002
			US 2003058449 A1	27-03-2003
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